

REMARKS/DISCUSSION OF ISSUES

The Examiner is respectfully requested to state whether the drawings are acceptable.

Claims 17-29 (sic) have been withdrawn from consideration. Claims 1-16 remain in the application.

Claims 1 and 2 are rejected under 35 USC 103(a) as being unpatentable over Shippee et al. (herein 'Shippee') in view of Gutta et al. (herein 'Gutta').

Shippee discloses a ceramic metal halide discharge lamp of the same general type as that claimed by Applicant. While the lamp includes an arc tube, Shippee does not teach or suggest anything with respect to coiling a wire around the outside of the arc tube, as acknowledged by the Examiner. In fact, Shippee's invention relates to a wire frame member for relieving thermal stress.

Gutta discloses a high pressure sodium vapor lamp having a refractory metal wire coiled around the arc tube. Such lamps require a considerably higher starting voltage than do other types of arc discharge lamps, such a metal halide. See col. 1, lines 33-36. The purpose of the coiled metal wire is to secure a heater to the outside of the arc tube, but also to provide auxilliary heating to further aid in starting. See col. 3, lines 7-12.

Because Gutta teaches the use of heating devices to aid in starting high pressure sodium lamps, and furthermore Gutta teaches that such starting problems do not occur in other types of discharge lamps such as metal halide lamps, the skilled artisan would not be led by the teachings of Gutta to apply a coiled wire to the arc tube of a metal halide lamp.

On the contrary, by teaching that such a coiled wire is a support for a starting aid as well as an auxilliary starting aid, and that such starting problems are unique to high pressure sodium lamps, Gutta actually teaches away from Applicant's invention.

It is only with the aid of hindsight from Applicant's own teachings that the skilled artisan could be led to the invention, and such hindsight is not permitted in judging obviousness under Section 103.

Accordingly, it is felt that the rejection of claims 1 and 2 under 35 USC 103(a) over Shippee in view of Gutta is in error and should be withdrawn.

Claims 3-8 are rejected under 35 USC 103(a) as being unpatentable over Shippee in view of Gibson et al. (herein 'Gibson') in further view of Gutta.

Claim 3 is similar to claim 1 in that it calls for the arc tube to contain a metal halide and for a molybdenum wire to be attached to the arc tube. Thus, claim 3 is patentable for the same reasons advanced with respect to the patentability of claims 1 and 2, above.

Claim 3 differs from claim 1 in calling for certain structural features of the arc tube, such as a cylindrical barrel, a pair of ceramic end plugs, a pair of lead-ins extending through the end plugs, having a hermetically sealed niobium portion, a central portion of molybdenum/aluminum cermet, a molybdenum rod portion and a tungsten-wound tip.

Gibson discloses many of the same arc tube features for a metal halide lamp. However, Gibson fails to teach or suggest the attachment of a moly wire to the arc tube.

Since Gutta fails to teach or suggest, and in fact teaches away from adding a metal wire to the arc tube of a metal halide

lamp, for the reasons already stated, and since neither Shippee nor Gibson provide such a teaching or suggestion, it is felt that the rejection is in error and should be withdrawn.

Claim 9 is rejected under 35 USC 103(a) as being unpatentable over Shippee in view of Gibson and further in view of Gutta, and yet further in view of Roberts.

Roberts states that thorough mixing of the fill ingredients may be enhanced by an arc tube aspect ratio of 0.5 to 5. This is a very broad range, and in fact encompasses the aspect ratios for both the higher wattage MasterColor® lamp family of the present invention, i.e., 3.3-6.2, and the lower wattage MasterColor lamps, i.e., 1.0-1.5.

Thus, Roberts teaches a very broad range based on the achievement of thorough mixing, and teaches nothing with respect to narrower ranges within this broad range. Certainly, Roberts offers no guidance whatsoever which would lead to the specific narrow ranges preferred for high wattage and low wattage lamps, as disclosed by Applicant.

Accordingly, it is felt that claim 9 is patentable over the cited combination of references, and it is urged that the rejection is in error and should be withdrawn.

Claims 10 and 11 are rejected under 35 USC 1023(a) as being unpatentable over Shippee in view of Gibson in further view of Gutta and in yet further view of Izumiya et al. (herein 'Izumiya').

While it is acknowledged that none of the references disclose an electrode tip extension or a specific cermet composition, it is urged by the Examiner that the claimed subject matter has not been shown to solve any problem or yield any unexpected results.

This comment is not understood. The subject matter of

claims 10 and 11 is clearly explained to set forth preferred embodiments of the invention. Applicant is clearly entitled to claim such preferred embodiments, where the references fail to teach or suggest such preferred embodiments.

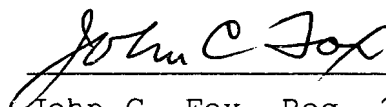
The Examiner merely points to specific disclosures of design parameters by the various cited references, none of which are the same as those claimed by Applicant. Nevertheless, it is stated that Applicant is not entitled to his preferred embodiments because they fail to solve a specific problem.

However, the claimed subject matter is not required to solve a specific problem, but only to describe patentable subject matter over the cited combination of references. Since the references fail to teach or suggest the claimed subject matter, it is urged that the rejection is in error and should be withdrawn.

The notice of allowability of claims 12-16 is appreciated. However, in view of the above arguments, it is felt that all of the pending claims are allowable over the references applied.

In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the objections and rejections of record, allow all the pending claims, and find the application to be in condition for allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "John C. Fox", is written over a horizontal line.

John C. Fox, Reg. 24,975  
Consulting Patent Attorney  
203-329-6584